

# NAVAL MEDICAL RESEARCH AND DEVELOPMENT NEWS

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## Surgeon General Views Research at Navy's Alamo Laboratory

By Joe N. Wiggins, NAMRU-San Antonio Public Affairs

The Navy's top doctor visited one of the Navy's newest biomedical research labs in the Alamo City, June 14, and left impressed with what he saw.

Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief of the Bureau of Medicine and Surgery, visited the Naval Medical Research Unit-San Antonio ([NAMRU-San Antonio](#)), receiving briefings and hands-on tours of many of the lab's latest developments, which included new and ongoing projects in the core missions of directed energy, dental, and combat casualty care biomedical research.

NAMRU-San Antonio operates in two facilities, the Battlefield Health and Trauma Research Institute and the Tri-Service Research Laboratory. The admiral had the opportunity to visit both.

"It was an honor to have Admiral Nathan see what we are doing and hear his thoughts about our ongoing research and development efforts," said Capt. Vincent Delnnoentiis, commanding officer of NAMRU-San Antonio. "His comments, questions and observations truly inspired our staff. He also gave us a clear picture of how our mission fits into the overall Navy Medicine picture and supports the warfighters in the field."

During the tour, Nathan watched a demonstration of the new tourniquet testing using the HapMed Combat Medic Trainer and spoke with the researchers about their work. The trainer simulates pulse and other bodily functions and shows when circulation is controlled using a tourniquet. NAMRU-San Antonio is the lead laboratory for the Tri-Service test and

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From left: Cmdr. Nora Perez, head of the Combat Casualty Care Research Department, NAMRU-San Antonio, and Lt. Cmdr. Anne McKeague, head of the department's Expeditionary Medicine Division, brief Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief of the Bureau of Medicine and Surgery on tourniquet research being conducted at the unit using the HapMed Combat Medic Trainer. In the background are Judge E. Kelly, student intern, and Lincoln Miller. Photo by Joe N. Wiggins.

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## Commanding Officer's Message

This summer has been a time of change for the enterprise; we have seen several changes of command.

The first mention of the change of command ceremony in Navy regulations occurred during the Civil War and there has been little change in the procedures since then. The change of command ceremony is under way when all hands are called to quarters at the appointed hour. This is a Navy tradition that formally transfers authority and responsibility from one commanding officer to another, ensuring official leadership continues to support our incredible endeavors around the world. During these ceremonies, we also take time to acknowledge the time served at a laboratory and express appreciation for the guidance and leadership rendered.

During each ceremony I attended, I saw proud officers and staff who have accomplished so much; I saw dedication to the mission and commitment to the warfighter; and I saw a future for Navy Medicine's biomedical research that is built on the proud legacy of achievements. I saw a global team that encompasses diverse disciplines engaged in complex and advanced research on some of Navy Medicine's most compelling biomedical challenges.

This summer, whether you are moving to a new command or staying in place, take time for fun in the great outdoors – camping, fishing, bicycling, swimming, barbecues and fireworks – all the telltale signs of summer. You certainly deserve some well-earned time off for all your hard work. Keep summer safety in mind, be careful. You are all valuable members of our team and contribute so much to our success, I want to see you back at work whole and healthy.



Commanding Officer sends,  
Richard L. Haberberger, Jr.  
CAPT, MSC, USN

## Surgeon General Views Research at Navy's Alamo Laboratory

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evaluation study titled, "Joint Operational Evaluation of Field Tourniquets."

"The testing we demonstrated for Admiral Nathan included evaluating the parameters of the tourniquet currently used in the field, along with other alternatives being considered," said Lt. Cmdr. Anne McKeague, head of the Expeditionary Medicine Division, Combat Casualty Care Department of NAMRU-San Antonio.

"I can remember in the Boy Scouts being trained on the use of improvised tourniquets," said Nathan. "Some time later, their use became sort of blasé in the medical community, but now they are critical in combat conditions. After my tour in Kandahar Province, Afghanistan, I know these devices are saving lives."

During a discussion on the current dental and biomedical research projects, Nathan was very interested in how the research was developed as

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Dr. Rene Alvarez (right), head of the Applied Laboratory Sciences Division, Department of Dental and Biomedical Research, NAMRU-San Antonio, briefs Vice Admiral Matthew L. Nathan, U.S. Navy surgeon general and chief of the Bureau of Medicine and Surgery, on research developing new ways to identify and classify specific types of infections. Photo by Joe N. Wiggins.



## Student Interns Spend a Productive Summer Working at NMRC

At the Naval Medical Research Center (NMRC), it is common to see young high-school and college students walking through the hallways with their peers. This year, we have 11 interns who are a part of the Naval Research Enterprise Intern Program (NREIP) and Science and Engineering Apprenticeship Program (SEAP) programs. These programs have been successful under

the direction of Lt. Mario Guerrero, the student programs coordinator.

Together with the NMRC Public Affairs Office and the Navy Medicine Support Command Media Production team, Lt. Guerrero was able to create a video that highlights some of the mentors and interns. He hopes the linked video serves as the beginning for continued expansion of Science, Technol-

ogy, Engineering and Mathematics development programs at NMRC.

"We would like this project to help increase awareness of the program, with the ultimate goal of increasing mentor support," Guerrero said.

View the STEM video on the Navy Medicine Live Blog: <http://navymedicine.navylive.dodlive.mil/archives/3217>.



*Capt. John Sanders, NMRC executive officer (far left), Lt. Mario Guerrero, NMRC Student Programs Coordinator (center) and Capt. Richard L. Haberberger, Jr., NMRC commanding officer (far right) pose with 2012 NREIP and SEAP interns. Photo by Louis Sanders.*

## Surgeon General Views Research at Navy's Alamo Laboratory

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well as how it affects other areas of the medical mission. When briefed on research dealing with targeting drug-resistant bacteria, the admiral had several questions for the research staff.

"I'm certain that biogenetics is the next big thing in medicine," Nathan said after learning of their work and current findings. "Cracking this code in one area like dental and biomedical research will affect many other areas of medicine for the Navy and all

warfighters."

"I was very impressed with his interest in our dental and biomedical research, as well as his depth of understanding of the importance of what we are doing," said Dr. Nancy Millenbaugh, a research chemist in the Dental and Biomedical Research Department. "He was very interested in how we conceived our areas of research, the results we are seeing, as well as how what we do here could affect other areas of military medicine."

Nathan also discussed the future of

Navy Research and Development during an All Hands call.

"It was great to talk to the people and to see their passion that is driving their research," said Nathan. "I urged them to continue to develop new concepts that lead to new areas of R&D. My time in Kandahar reinforced just how much what they are doing here can ultimately save lives in combat scenarios. I know I haven't seen everything they do, so I am looking forward to visiting with them again in the future."

## Cross-Fertilization Between Malaria and HIV Vaccine Developers

The International AIDS Vaccine Initiative (IAVI) is a non-profit organization headquartered in Manhattan and funded by the U.S. Agency for International Development, the Bill and Melinda Gates Foundation and other benefactors. Each year, IAVI presents its scientific program to a team of external vaccine experts, seeking their input on optimizing the strategic direction of the research. Members include vaccine developers from industry, academia and government as well as clinicians from countries such as Kenya, South Africa and Thailand, where IAVI-sponsored studies are underway.

"I just completed one of the most exciting experiences of my career," said Capt. Tom Richie, research coordinator for the U.S. Military Malaria Vaccine Program, after returning from two days serving on the Scientific Advisory Board (SAB) of IAVI.

"IAVI is a high-powered research enterprise pursuing a mission to develop a vaccine against the human immunodeficiency virus (HIV), the cause of acquired immunodeficiency syndrome (AIDS). The IAVI scientists are an inspiration. The entire institution is dedicated to the vision of a

world without AIDS," Richie added.

"For ten hours each day, we brainstormed, weighed options, shared insights and tried to help the IAVI team," said Richie, who was invited to join the SAB due to his knowledge of malaria vaccines.

His three years on the SAB have yielded significant benefits for the Naval Medical Research Center (NMRC).

"Although AIDS, which is caused by a small retrovirus, and malaria, which is caused by a protozoan parasite, are very different diseases, many of the challenges facing vaccine developers are shared. The IAVI team hopes to learn from experiences in the malaria vaccine field," said Richie.

HIV, malaria, and tuberculosis are three infectious diseases among many that have proven difficult in the development of highly effective vaccines. The World Health Organization estimates these three diseases are responsible for over 3.5 million deaths each year. Vaccines are desperately needed, and it is hoped that cross-fertilization among these efforts will accelerate progress.

"Supported by relatively abundant resources, HIV vaccine researchers

have tested exciting approaches not yet tested in malaria," said Richie. "One example is using attenuated cytomegalovirus (CMV) as a vaccine vector. Dr. Louis Picker at the Oregon Health and Science University (OHSU) has been developing this approach for HIV vaccines with IAVI support. Having learned of Dr. Picker's successes protecting monkeys against simian immunodeficiency virus (SIV) with recombinant CMV, the NMRC Malaria Department and OHSU developed a collaboration. As a result, the first CMV malaria vaccine constructs should be ready for testing in non-human primates within a year."

"It's very exciting to see the progress in HIV vaccines translate to malaria vaccines," said Richie.

Malaria can also contribute significantly to HIV vaccine development. For example, it is possible to challenge humans with malaria to determine whether novel vaccine approaches protect – a test not possible with HIV. By using the human challenge model, malaria researchers are often the first to measure the value of a new vaccine platform.

"It is a joy to be able to support each other's research," said Richie.

## Retiring BUMED PAO Speaks at NMRC Mentorship Seminar

U.S. Navy Bureau of Medicine and Surgery (BUMED) public affairs officer (PAO), Capt. J.A. "Cappy" Surette, lectured at the NMRC Mentorship Seminar Series, June 7. Surette served as the principal spokesman for the global Navy Medicine enterprise and provided strategic communication counsel to the U.S. Navy Surgeon General.

His lecture discussed the role of public affairs in the Navy and Navy Medicine enterprise. Surette explained how important it is to utilize the many channels of communications, such as corporate communication, face-to-face engagement, and social and new media engagement to deliver one message. Social media is such a powerful communication tool when used appropriately and in concert with traditional

channels. By using all communication assets together and for a common purpose, there is a greater opportunity to communicate to a wider and more diverse audience than through the use of traditional means alone.

In addition, he stressed the importance of giving the PAO in your command a "seat at your table," adding that the PAO should have direct access to the commanding officer and executive officer. The PAO is critical in telling the command's and Navy Medicine's story.

Surette is now embarking on a new chapter in his life as he retires from the U.S. Navy this summer. He said that "it has been an absolute honor serving as the Navy Medicine spokesman and a real privilege to tell the story about the



incredible work our Navy and military healthcare teams do every day around the world to support our warriors and their families."



## Navy Surgeon General Discusses Medical Future with Student

By Joe N. Wiggins, Public Affairs Officer, NAMRU -San Antonio

For the second year in a row, the Naval Medical Research Unit-San Antonio ([NAMRU-San Antonio](#)) is participating in two Navy programs designed to give students an opportunity to explore science and engineering careers.

As part of the Office of Naval Research STEM (Science, Technology, Engineering and Mathematics) program, the Naval Research Enterprise Intern Program (NREIP) provides an opportunity for students to participate in research at a Department of Navy laboratory during the summer.

One of the two students participating in NREIP here at NAMRU-San Antonio had the chance to speak to the Navy's senior physician during his tour of the laboratories.

Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief of the Bureau of Medicine and Surgery, took some time to discuss future medical opportunities and options in Navy Medicine with Judge E. Kelly, a summer student intern from the University of South Dakota working in the Combat Casualty Care Department.

"I was very impressed with what Admiral Nathan had to say, and the fact that he took the time in his schedule to discuss my future with me," said Kelly.

***"I was very impressed with what Admiral Nathan had to say, and the fact that he took the time in his schedule to discuss my future with me," said Kelly.***

Nathan explained how he first came into the Navy, not expecting or planning to stay past the mandatory period to meet his obligation. However, as he talked with his former medical school classmates, it became clear to him that his fellow Navy physicians were concerned with patient care, while other colleagues were wrapped up in business matters having little to do with medical practice.

"For nearly 30 years, I have stayed



*From left: Cmdr. Nora Perez, head of the Combat Casualty Care Research Department, Naval Medical Research Unit-San Antonio, listens as Vice Admiral Matthew L. Nathan, U.S. Navy surgeon general and chief of the Bureau of Medicine and Surgery, talks about his Navy career since graduating from medical school with Judge E. Kelly, student intern from the University of South Dakota. Kelley is participating in the Naval Research Enterprise Intern Program at NAMRU-San Antonio. Photo by Joe N. Wiggins.*

in the Navy and been presented with more and more challenges than I think I could have ever gotten in the private sector," said the admiral.

Kelly is in San Antonio for 10

weeks, participating in a research program under the supervision of a Navy mentor. When finished with his research, he will present his findings to the laboratory staff along with a major poster documenting his findings.

Also part of the Office of Naval Research STEM program, NAMRU-San Antonio is participating in the Science and Engineering Apprenticeship Program (SEAP). The SEAP

program encourages area high school students to pursue science and engineering careers and become familiar with the activities of Navy laboratories while giving them exposure to scientific and engineering practices usually not available in their school environment. There are currently four students working at NAMRU-San Antonio as part of the SEAP program.

The students in the SEAP and NREIP programs are selected and mentored by a Navy officer during their time at NAMRU-San Antonio.

The mission of NAMRU-San Antonio is to conduct medical, dental, and directed energy biomedical research, that focuses on ways to enhance the health, safety, performance, and operational readiness of Navy and Marine Corps personnel and addresses their emergent medical and dental problems in routine and combat operations.

# NSMRL Holds Change of Command, Retirement Ceremony

Capt. Paul C. Kelleher, commanding officer, Naval Submarine Medical Research Laboratory ([NSMRL](#)), was relieved of command by Capt. Steven M. Wechsler during a traditional military change of command ceremony at the Submarine Force Library and Museum Historic Ship Nautilus, Groton, Conn., June 1. The occasion also served as Kelleher's retirement ceremony. He was honored for 23 years of service to the U.S. Navy.

Capt. Richard L. Haberberger, Jr., commanding officer, Naval Medical Research Center, served as the guest speaker for the ceremony and spoke about Kelleher's commitment to the Navy, his exemplary leadership and direction, and accomplishments as the commanding officer of NSMRL.

During the ceremony, Haberberger presented Kelleher with his Legion of Merit Award for exceptional meritorious conduct in the performance of outstanding service from September 2009 to June 2012, signed by M.L. Nathan, Vice Admiral, Medical Corps,

United States Navy, Chief, Bureau of Medicine and Surgery.

Kelleher praised his team of directors, department heads, researchers, and operations personnel, but also took time to thank his Navy colleagues, mentors, family and friends for all their love and support. He wished Wechsler the best of luck as the new commanding officer of NSMRL.

Kelleher received his medical doctorate from the University of Connecticut and completed an internal medicine residency at the University of Connecticut Health Center prior to joining the Navy. He served in such prestigious positions as research medical officer at the Navy Experimental Diving Unit; was selected for the Personnel Exchange Program and assigned to the Royal Navy's Institute of Naval Medicine, Alverstoke, United Kingdom; served as associate director, operational medicine and head, occupational medicine at the Naval Ambulatory Care Center; was officer in



*Capt. Steven Wechsler addresses the audience after taking command at NSMRL.*

charge at the Detention Hospital, Guantanamo Bay, Cuba; and served as director of education and then officer in charge of the Naval Undersea Medical Institute.

During his remarks, Wechsler said, "We are at an inflection point, the inflection point of opportunity. The caliber of the personnel at this command, the talent we have here, is unparalleled across the enterprise. We've absorbed the challenges and shown our resilience. My challenge to you, better, my charge to you is to seek opportunity and exploit it. Venture forward boldly and deliberately. The future is ours, and I am proud and honored to lead you in this charge."

Wechsler was deployed to Expeditionary Medical Facility Kuwait in 2005-2006 and again in 2010-2011 in support of Operations Iraqi Freedom, Enduring Freedom and New Dawn, where he served as officer in charge of the Combat Operational Stress Team-Navy and Mental Health department head. Wechsler was selected for executive medicine and served as executive officer at the Naval Submarine Medical Research Laboratory from 2011-2012.



*Outgoing NSMRL commanding officer Capt. Paul C. Kelleher at the change of command and retirement ceremony in Groton, Conn., June 1, 2012.*



## Change of Command Ceremony at NAMRU-3 in Cairo, Egypt

*From NAMRU-3 Public Affairs*

The U.S. Naval Medical Research Unit No. 3 ([NAMRU-3](#)) conducted a change of command ceremony, June 7, under a gala blue and white tent constructed on the command grounds. Capt. Richard L. Haberberger, Jr., commanding officer, Naval Medical Research Center, officiated. With 150 guests and over 200 members of the NAMRU-3 staff in attendance, Capt. Robin M. Wilkening, outgoing commanding officer, turned over command to Capt. T. Buhari A. Oyoyo, the first Medical Service Corps officer to serve as commanding officer of NAMRU-3.

After piping on board the incoming commanding officer, U. S. Ambassador Anne Patterson, Assistant Minister of Health Dr. Nasr El Sayed, and the commanding officer, a U.S. Marine color guard from the U.S. Embassy posted the colors. Special events included the recitation of a verse from the Holy Quran by NAMRU-3's Mr. Khaled Salah and the singing of the traditional Navy hymn, "Eternal Father," by a special NAMRU-3 choir who volunteered to sing for this occasion.

Wilkening mentioned in her comments, "In the past two years, NAMRU-3



*Capt. T. Buhari A. Oyoyo (left) and Capt. Robin M. Wilkening. Oyoyo assumed command of NAMRU-3, June 7, 2012.*

scientists had realized a seven-fold increase in manuscript production. The scientists are on fire for the NAMRU-3 mission and have transformed it into tangible achievements."

In an effort to provide a more meaningful program for all in attendance, both Wilkening's and Oyoyo's remarks were

simultaneously translated for the non-English speakers in the audience. Midway through the program, Ms. Sharon Daves sang "America the Beautiful" and Mr. Hany Kamel sang the Arabic song "My Beloved Egypt."

After Oyoyo relieved Wilkening, seven members of the Oyoyo family joined him on the stage to assist his wife, Tina, in pinning on the command pin. Not a newcomer to NAMRU-3, Oyoyo first reported in 1993, serving as head of the Microbiology Department and safety officer. He returned in 2007 as deputy director, Research Science Directorate. He then assumed responsibilities as executive officer in June 2010. As the new NAMRU-3 commanding officer, he told the guests and NAMRU-3 staff, "There is no magic to success, but that success is achieved through communication, teamwork, hard work and loyalty; that, together, we can achieve our mission."

The mission of NAMRU-3 is to study, monitor and detect emerging and re-emerging disease threats of military and public health importance and to develop mitigation strategies against these threats in partnership with host nations and international and U.S. agencies in the Central, Europe, and Africa Command areas of responsibility.



*From left: Capt. Oyoyo, Capt. Wilkening, Capt. Haberberger, Dr. Nasr El Sayed, and Ambassador Anne Patterson.*



# Naval Medical Research Unit-Dayton Change of Command

By Cmdr. Daniel Hardt

Capt. Doug Forcino assumed command of Naval Medical Research Unit-Dayton ([NAMRU-Dayton](#)) during a change of command ceremony held at the U.S. Air Force Institute of Technology, June 11. Forcino formally took charge of the U.S. Navy's aeromedical and toxicological research laboratories by relieving Capt. Keith Syring, who served as NAMRU-Dayton's first commanding officer.

During his two-year command, Syring successfully presided over the transfer of the Naval Aerospace Medical Research Laboratory from Naval Air Station Pensacola, Fla., to merge with the Environmental Health Effects Laboratory at Wright-Patterson Air Force Base under mandate by the Base Realignment and Closure Commission (BRAC). As stated by Rear Adm. Bruce Doll, medical advisor, Allied Command Transformation (NATO), during his keynote address, "Capt. Syring deftly navigated [NAMRU-Dayton] through the development of several critical mission areas and skillfully merged two distinguished, disparate organizations into a collaborative and cohesive unit."

Under Syring's watch, NAMRU-Dayton developed several premier research facilities in the Department of Defense, which include state-of-the-science research capabilities in normobaric hypoxia, disorientation and spatial awareness, *in vitro* screening techniques and inhalation toxicology. The personnel at NAMRU-Dayton have been on the cutting edge of addressing military relevant risks, such as the reproductive health of female crew members aboard submarines, the hypoxia threat to Naval aviators and Air Force pilots, the toxicity of alternative military fuels and military explosives, and the respiratory health risk from burn pit emissions. For his meritorious leadership at NAMRU-Dayton, Syring was presented the Legion of Merit by Capt. Richard L. Haberberger, Jr., commanding officer, Naval Medical Research Center. Syring reports in July as deputy



*Capt. Doug Forcino (left) received his command as NAMRU-Dayton commanding officer from Capt. Richard L. Haberberger, Jr., NMRC commanding officer, June 11.*

commander, U.S. Army Medical Research and Materiel Command, Fort Detrick, Md.

During the final address to his crew, Syring emphasized the importance of achieving a balance in life, particularly between work and family, and thanked his staff for helping him succeed.

Prior to Forcino's reassignment as commanding officer of NAMRU-Dayton, he served as the executive officer of the Naval Health Research Center, located in San Diego, Calif. Forcino holds a B.A. in biology from Shippensburg University of Pennsylvania, M.S. and Ph.D. degrees in physiology from Ohio State University,

and completed an American Heart Association postdoctoral fellowship at the Hershey Medical Center at Pennsylvania State University prior to entering the Navy. Forcino has been at the forefront of Navy medical research for decades, innovating and integrating new technologies. During his initial address to his new command, Forcino acknowledged the attendance of Brig. Gen. Tim Jex, U.S. Air Force, commander, 711th Human Performance Wing; and Col. Daniel Samsel, U.S. Air Force, vice commander, 88th Air Base Wing, and emphasized the importance of joint ventures and cultivating tri-service cooperation.



## Capt. Daniel Retires After Nearly 30 Years of Navy Service

Capt. John Christopher Daniel, deputy commander of the U.S. Army Medical Research and Materiel Command (MRMC) at Fort Detrick in Frederick, Md., retired June 19, at a ceremony held at the Naval Medical Research Center (NMRC) in Silver Spring, Md.

Daniel, who served as NMRC's commanding officer prior to his Army assignment, was the first Naval officer to serve as deputy commander of MRMC, a global organization with over 6,000 military and civilian personnel. MRMC works with numerous international, interagency, academic and industry partners to manage and execute medical research, development and acquisition for the Department of Defense and the nation to field, distribute and maintain medical products, supplies and equipment for the Army.

"It has been a tremendous honor for me to have served our Nation, its heroes, and the entire warfighter family for almost three decades, supported and inspired by my family and by tremendous shipmates every inch of the way," Daniel said during the ceremony.

Daniel graduated cum laude from Princeton University and was commissioned as an Ensign while attending



*Capt. John Christopher Daniel and his wife as they are "piped ashore" at his retirement ceremony at NMRC. Photo by Phil Collins.*

Jefferson Medical College in Philadelphia, where he obtained his M.D. His career has taken him around the world, including being the executive officer at the U.S. Naval Medical Research Unit No. 2 in Jakarta, Indonesia; the commanding officer of the Naval Submarine Medical Research Laboratory in

Groton, Conn.; and the commanding officer of NMRC, where he led Navy Medicine's global enterprise of laboratories in Egypt, Peru, Indonesia, Ghana, Cambodia and throughout the U.S. to enhance the health safety, readiness and performance of Navy and Marine Corps personnel.

## Researcher's Spouse Becomes U.S. Citizen before Heading to Cairo



*Lt. Gabriel Defang of NMRC's Infectious Diseases Directorate and Benita Defang, a new U.S. citizen.*

Benita Defang, wife of Lt. Gabriel Defang of the Naval Medical Research Center's Infectious Diseases Directorate, recently became a U.S. citizen. Mrs. Defang, who is of Cameroonian nationality, was born in Zaria, Nigeria. The U.S. Citizenship and Naturalization Service office moved up her naturalization oath ceremony by a week because the family is moving to Cairo, where Lt. Defang will be assigned to the U.S. Naval Medical Research Unit No. 3.

According to her husband, Mrs. Defang raised her right hand and held the American flag in her left and proudly took her oath of allegiance Monday, June 11 at the U.S. District Court in Greenbelt, Md.

"I am so proud to be an American. My opportunities are now endless and my dreams can come true if I work hard. You can't say that for any other country in the world!" said Mrs. Defang.

According to Lt. Defang, the ceremony saw 34 individuals from 17 countries become new U.S. citizens. His wife now joins a large group of foreign-born Americans who happen to include famous names like the great Naval officer John Paul Jones, secretary of the treasury Alexander Hamilton, and secretary of state Madeleine Albright, as well as many other military spouses.



## NMRC Junior Officers “Sailabrate” the War of 1812 in Baltimore

As many of you undoubtedly know, Baltimore, Md., played an important role in the War of 1812 and in the history of our modern day Navy. Two of our nation’s most enduring symbols were also born out of Baltimore during the War of 1812—the Star-Spangled Banner and the National Anthem. To mark the War of 1812 bicentennial, Baltimore hosted a “Sailabration” in mid-June.

Events included a parade of Naval and tall ships, tours of those ships, a visit from the Blue Angels, concerts, as well as fireworks.

A group of junior officers from the Naval Medical Research Center (NMRC), Silver Spring, Md., along with their families traveled to Baltimore June 14, Flag Day, to take part in the festivities. In total, 17 attended the event.

The day began with the officers and their families being treated to an opening ceremony marking the start of the War of 1812. Included in the opening ceremony were remarks from Rear



*NMRC junior officers, along with their families, took part in the “Sailabration” in Baltimore, Md., observing the bicentennial of the War of 1812.*



*Lt. Nicholas Martin of NMRC watches as his son sews a thread from the Star-Spangled Banner into the National 9/11 Flag.*

Adm. Gregory Nosal, commander of Carrier Strike Group Two, prominent speakers from Baltimore and around the state of Maryland, and a performance by the Navy Band.

Following lunch in the Inner Harbor of Baltimore, the officers and their families were also treated to a special presentation at the Flag House, where the Star-Spangled Banner was assembled 200 years ago. The presentation included a ceremony where threads from the Star-Spangled Banner were sewn into the National 9/11 Flag to mark the occasion. Two children from the NMRC group even had the privilege of adding stitches to the flag.

After the flag ceremony, the officers

and their families spent the afternoon touring several of the tall ships that were docked in the harbor for the occasion. More than 30 tall and grey hull ships were in Baltimore for the event.

As an added bonus, the Navy’s own Blue Angels were in the sky over Baltimore all afternoon. They were practicing for their air show that took place the following weekend.

What better way to spend the day than touring ships and watching the Blue Angels! Overall, the event was a terrific success. Not only was the junior officer “Sailabration” outing great fun, but the event was also an opportunity to learn more about our shared Naval heritage and tradition.



## NMRC Researcher Guest Speaker at Undersea Medicine Meeting

Capt. Richard Mahon, deputy director of the [NMRC](#) Undersea Medicine Department, was a guest speaker at the Plenary Session of the Undersea and Hyperbaric Medicine Society's annual meeting in Phoenix, Ariz. in June. A pulmonary and critical care medicine physician, Mahon presented a lecture on immersion pulmonary edema.

Swim-induced pulmonary edema (SIPE) has been reported among Naval Special Warfare trainees, diver trainees and recreational SCUBA divers. SIPE results from the combined effects of water immersion and exertion, which lead to pulmonary capillary stress failure and edema due to central vascular volume redistribution. The effects include a decreased vital capacity and increased pulmonary artery pressure.

"For obvious reasons, these would significantly compromise effectiveness in U.S. Navy Diving and Special Forces operations," said Mahon. "Symptoms range from a mild cough to chest tightness and wheezy labored breathing. Clinically, confirmation uses radiograph and measurable low oxygen saturation."

Immersion pulmonary edema can be dangerous and is exacerbated with exercise (i.e., swimming). Treatment options include oxygen supplementation and physical training restriction (12-48 hours). Other treatments, including diuretics and beta-agonists, warrant further investigation.

"The good news is that it should resolve quickly with rest," said Mahon. "And there are ways to minimize risk and severity, particularly for those at risk of a recurrence. In those

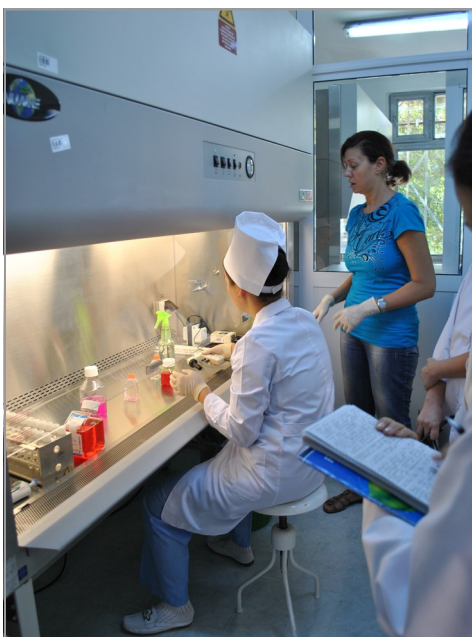


*From left: Capt. Richard Mahon, Cmdr. David Regis, and Lt. Andy Cronin.*

cases, we recommend avoiding vigorous hydration prior to submersion and switching sides while swimming for more uniform blood flow. It is always prudent to maximize swimming efficiency; not only does this increase operational effort, it also lowers the chances of pulmonary edema occurring."

Mahon stressed that swimming and diving injuries affecting the pulmonary system are numerous and SIPE remains a diagnosis of exclusion, as it may mimic other conditions.

## NAMRU-3 Influenza Center Project in Turkmenistan is Complete



*NAMRU-3's Iman Medhat providing training on virus isolation/cell culture and HAI.*

*From NAMRU-3 Public Affairs*

A five-year scientific project to assist Turkmenistan with the development of a National Influenza Center is complete. In 2007, the U.S. Naval Medical Research Unit No. 3 ([NAMRU-3](#)) in Cairo, Egypt, initiated this collaborative effort focused on avian influenza virus (AI) control and human pandemic preparedness and response through improvements in laboratory capacity building initiatives. Specifically, the project sought to monitor AI and influenza virus in humans, particularly the strain known as H5N1.

"NAMRU-3 installed laboratory equipment to enhance laboratory capacity and develop appropriate bio-safety practices. With the support of the U.S. diplomatic mission in Ashgabat, NAMRU-3 sent teams of researchers and technicians to assess in-country medical facilities, install equipment and

conduct hands-on laboratory training," said Capt. Buhari Oyofo, the commanding officer of NAMRU-3.

Oyofo added that this was a collaborative project with the Turkmenistan Ministry of Health, under the auspices of the World Bank (WB), the U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) Global Influenza Surveillance and Response System.

The combined efforts of NAMRU-3, the WB, and the CDC have provided the Turkmenistan Ministry of Health with the ability to receive and process appropriate samples for virus isolation and identification while meeting WHO national influenza center standards. The laboratory must have virological and epidemiological monitoring capacity for influenza, including sample collection and appropriate shipment and the capability to perform influenza virus isolation and subtyping.

## Officers Brave Weather to Participate in Weapons Qualifications

Naval Medical Research Center (NMRC) officers Lt. Vince Gerbasi, Cmdr. Robert Gormley, Lt. Rebecca Pavlicek and Lt. Brian Pike traveled to Camp Allen in Norfolk, Va. June 1, to take a weapons course and obtain the Navy's qualification on the pistol and the rifle.

Open to any officer interested in improving weapons skills and obtaining a Naval weapons qualification, the event was organized to add to the esprit de corps of NMRC and as a self-improvement opportunity for individual officers to build important Navy skills.

A daylong event that included a treacherous trip back during a severe weather system that spawned numerous tornadoes throughout the region, the outing was a great success.

The day included four hours of instruction on the safety and handling of the firearms and supervised range training as well as scored qualifications on both the pistol and the rifle. Overall, the participating officers returned home with three new pistol qualifications and one new rifle



*NMRC officers travel to Camp Allen in Norfolk, Va. to take a weapons course and obtain the Navy's qualification on the pistol and the rifle.*

qualification.

For other interested individuals, the shooting range at Camp Allen offers weekly opportunities to qualify on the

pistol and rifle. For more information, visit the range's website at [http://www.mccscampallen.com/shooting\\_range.htm](http://www.mccscampallen.com/shooting_range.htm).

## NMRC Fencer Competes at U.S. Military Fencing Championship



*Lt. Rebecca Pavlicek (right) competes at the 2012 U.S. Military Fencing Championship.*

At the Naval Medical Research Center, the population of military and civilian staff has a broad spectrum of talents. Some sing, some dance, and at least one of the junior officers is a competitive fencer.

Fencing is one of the oldest Olympic sports, dating back to its first appearance when the modern games launched in Athens, Greece in 1896.

It is a family of combat sports using three types of bladed weapons—the

traditional saber, the foil, and the épée. Fencing has been a long-standing U.S. Navy tradition—many of our military customs date back to when officers carried the saber as part of the uniform.

Lt. Rebecca Pavlicek, a military researcher in NMRC's Wounds Infections Department, qualified to compete in the 2012 U.S. Military Fencing Championship held at the U.S. Military Academy in West Point, N.Y. Pavlicek first picked up a foil twelve years ago and has recently returned to the sport to compete with the épée. The competition was fierce, but under the guidance of her fencing coach, Ilya Lobanenko, she placed third in women's épée, earning a bronze medal in the competition. She is training hard for next year's military championship and has her eyes on competing in the 2013 fencing nationals.



## Cornell University Veterinary Students Visit WRAIR/NMRC

Walter Reed Army Institute of Research (WRAIR) and Naval Medical Research Center (NMRC) hosted 27 students from the Cornell University Leadership Program for Veterinary Students, June 15.

NMRC Commanding Officer Capt. Richard Haberberger and WRAIR Executive Officer Col. Shanda Zugner welcomed the students and presented an overview of the current research

being done in each command. The agenda included presentations by U.S. Navy researchers Capt. Thomas Richie and Cmdr. David Regis and ended with a tour of the research facility. This visit provided successful exposure to students who are pursuing a potential career in Department of Defense medical research.

The leadership program is a unique summer experience for veteri-

nary students who seek to broadly influence the veterinary profession through a science-based career. Several of the scholars who have visited Army and Navy labs in past years have gone on to serve the United States military as veterinarians and researchers. Many of these individuals hold the potential to become future leaders in academic veterinary medicine and biomedical sciences at large.



### Greetings from the NMRC Ombudsman!

The 4th of July ushers in fireworks season and with it comes not only fun, but also the potential for injury. Safety is crucial to having fun with fireworks. First and foremost, ensure you are following the laws and regulations of your local community. Laws differ from state to state with regard to the types of fireworks one can possess. This is true even within the NMRC region, with laws differing between Virginia, Maryland and Washington, D.C. The National Council on Fireworks Safety offers advice both on state laws and fireworks safety at <http://www.fireworksafety.com/>.

In addition to fireworks, the 4th of July often marks the start of the vacation travel season. While loaded with fun, travel can put stress on families for various reasons. Travel can involve expenses that are not part of one's normal budget, and long car trips can strain the closest of families. Plan ahead and improve your odds of having a fun, memorable vacation.

First, budget wisely. Understand what your family can afford, make a budget and stick to it. Fun vacations need not be expensive ones. National Parks offer great opportunities for families to get away and reconnect with the great outdoors for a low cost. There are also great opportunities to save money as a military family. The Navy Lodge network of hotels offers terrific opportunities for military families to get away for a fraction of the cost of a regular hotel.

Beyond the network of Navy Lodge hotels, other benefits exist for military families, such as discounts to theme parks and other events. The discounts are out there. It often only requires a little advance planning and a few Internet searches to uncover the deals. Also, don't forget to look into the options at your local MWR, where you can save on a number of events and activities.

Beyond budgeting, it is also important to plan your vacations. Having a plan will limit the potential for disappointment and other difficulties during your travel. Book hotels in advance, make a packing list, and plan your route. But, most importantly, have fun! You've earned the vacation. Pack a good book, plenty of sunscreen, and have a great summer!

Alexandra Mora  
Ombudsman, NMRC



## NMRC Junior Officers Visit the White House, Tour East Wing

Lt. Cmdr. Franca Jones, who is detailed to the White House Office of Science and Technology Policy, hosted the NMRC junior officers on a tour of the East Wing of the White House June 8, as part of the [NMRC](#) junior officers mentorship series. The tour was a follow-up to the mentorship seminar Jones provided May 3, at the Naval Medical Re-

search Center, Silver Spring, Md.

The tour provided a historical overview of the rooms of the White House and provided an impetus for discussion of general functioning of the executive branch and how the Department of Defense and Navy fit into government functions.

As future leaders, junior officers

need to understand the history associated with the government and how the government functions. This understanding will improve the abilities of future leaders in Navy medical research and development to have an impact on policy, security, and funding decisions made to support medical research and development.



NMRC junior officers were given a tour of the White House's East Wing by Lt. Cmdr. Franca Jones, who is detailed to the White House.

### NMR&D News

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